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THE LYON VELVET BEAN (*Stizolobium niveum*).

The Lyon velvet bean is a very rampant-growing, annual legume, often making vines 60 to 80 feet in length. It grows well on soils too light and sandy for most other legumes and produces an immense amount of forage which is excellent feed for cattle and hogs. It also makes very good hay if cut soon after the first flowers appear, but the vines are so long and tangled that it is difficult to harvest and the plant is not recommended for that purpose. It is an excellent crop for newly cleared lands, as its growth is so rapid and dense that it smothers out the grass and brings the soil into a cultivable condition much better than will cowpeas. It also has great value for green manuring and as a restorative for soils needing nitrogen and humus. The proportion of nitrogen contained in the vines is about the same as in cowpeas, and as the yield is much greater the total amounts of nitrogen and humus added to the soil is correspondingly larger. A crop of 3 tons will add as much nitrogen to the soil as will a ton of cottonseed meal, while the amount of humus will be 3 times as great.

The planting should not be done too early, but at about the same time as cotton, as the beans do not make a thrifty growth until the soil has become well warmed. One bushel of the seed will plant 3 to 4 acres. The vines must be given some sort of support to keep them up from the ground or they will not make the most vigorous growth nor will they fruit well. Poles such as are used for Lima beans are best, but are troublesome and expensive. Cornstalks will do nearly as well. Some strong-growing variety, like the Mexican June, will give a very good support. The corn should be planted early, and when about 2 feet high the beans are planted between the hills. After planting, the crop should be cultivated until the vines shade the ground. The vines make such a heavy growth that little corn can be gathered from the field, but when it is grazed there is little loss. The only expense for growing the corn is the planting and that will be more than repaid in the increased yield of the beans.

The principal value of the beans is for winter grazing and for that purpose it is one of the best crops which can be grown on the light soils and in the long season of the immediate Gulf coast and Florida. The crop should be allowed to grow until December or until killed by frost, after which it can be grazed through the winter, as the vines, leaves, and pods decay very slowly and remain palatable a long time. The yield of seed from a fair growth of vines well matured is very heavy, from 25 to 40 bushels per acre, and 100 pounds of the pods will shell about 40 pounds of beans. The beans need not be shelled for feeding cattle and make an excellent grain feed for winter use. When grown in southern Florida some of the earliest maturing pods are likely to open a few weeks after ripening and so a few of the seed may be lost, but that trouble has not been seen farther north, and in any case the loss is very slight, especially if the field is grazed by hogs.

There are two other varieties of velvet beans which are somewhat common in cultivation, the Florida and the Yokohama, but the three are easily distinguished. The Lyon bean makes a very heavy growth of vine, has white flowers in clusters which are often 2 feet in length, and nearly smooth pods flattened and 4 to 6 inches in length, with flattened, nearly white seeds. The Florida bean also makes a strong vine, has dark purple flowers in short clusters, a closely fitting, nearly cylindrical, dark velvety pod about 3 inches in length, and the beans are nearly spherical, varying in color from a dark mottled brown to white. The Yokohama bean makes a vine of smaller growth, about like that of the Lima bean, has dark-purple flowers in short clusters, flattened pods 5 to 6 inches in length, with flattened seeds which are light gray in color. It also matures much earlier than either of the other varieties.

S. M. TRACY.

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